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VO, TUNG T

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                                      |   |  |
|------------------------------|--------------------------------------|---|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>09/823,506 | <b>Applicant(s)</b><br>FERNANDEZ ET AL. |  |
|                              | <b>Examiner</b><br>Tung Vo           | <b>Art Unit</b><br>2621                 |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

1) ☒ Responsive to communication(s) filed on 03/25/2009

2a) ☐ This action is **FINAL**.

2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

4) ☒ Claim(s) 38-69 is/are pending in the application.

4a) Of the above claim(s) 1-37 is/are withdrawn from consideration.

5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.

6) ☒ Claim(s) 38-69 is/are rejected.

7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.

8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on 29 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All b) ☐ Some \* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)

Paper No(s)/Mail Date 12/31/2008.

4) ☐ Interview Summary (PTO-413)

Paper No(s)/Mail Date. \_\_\_\_\_.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 03/25/2009 has been entered.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 38-41, 44, 46-49, 52, 54, 56-58, and 62 64-69 are rejected under 35 U.S.C. 102(e) as being anticipated by Hyuga (US 5,818,733) in view of Glatt (US 6,724,421).

Re claims 38, 40, 44, and 47-49, Hyuga teaches a system (fig. 13) comprising:

a movement module (2 of fig. 13) configured to receive first data (*e.g. the location of the object based on the GPS system as disclosed in figure 10, vectorial information and direction and distance from any imaging devices*) from a first detector (e.g. 27-1 of fig. 13), wherein the first data (*a location of the mobile unit carried by the player or patient, 1 of fig. 10, is detected by the GPS system, which has vectorial information and direction and distant from any imaging*

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*devices, 27-1-27-n of fig. 13) is associated with an object (note the mobile unit has the GPS system that indicates the location associated with the layer or patient) in a first observation range (note when the player or patient is located, the image device, 27-1 of figs. 3 and 13, captures the player with the first data information), wherein the movement module (2 of fig. 1) is further configured to determine the vectorial information of the mobile unit location and the direction and distance to the mobile unit (col. 5, lines 39-53, note the vectorial information of the mobile unit location and the direction and distance to the mobile unit (1 of fig. 10) are computed) based at least in part on the first data (first location of the object, fig. 10, within the first observation range of the first detector, 27-1 of figs. 3 and 13) and object data (e.g. 51 and 1 of fig. 13, ) received from a mobile unit (e.g. 1 of fig. 1) physically associated with the object, wherein the movement module (2 of fig. 13) is further configured to determine a second observation range (26 of fig. 13) associated with the object; and a processor (3, 22, and 26 of fig. 13) configured to select the first detector (27-1 of fig. 13, note the user enables to select the first detector) based at least in part on the first observation range (note the direction and distance to the mobile unit (1 of fig. 1) from any one of imaging devices (27-1-27-n of fig. 13), wherein the processor is further configured to select a second detector (27-2 of fig. 13) based at least in part on the vectorial information of its location indicating the direction and distance to mobile unit from the imaging devices(col. 5, lines 46-53) and the second observation range (27-2 of fig. 13); wherein the first detector (27-1 of figs. 3 and 13) is configured to hand-off observation of the at least-one object to the second detector (27-2 of figs. 3 and 13) in response to the processor (3 of fig. 13) selecting the second detector (27-2 of fig. 13) in an observation range (pan, tilt, and zoom controls, 26 of fig. 13) of the at least one object (e.g. fig. 4).*

It is noted Hyuga does not particularly teach to determine a movement vector of a movement of the object; the first detector is configured to predict a future location of the object and hand-off the observation of the object to the second detector in response to the movement vector indicating that the object is about to move into the second observation range; wherein the second detector is activated in response to the processor determining that the object is traveling from the first observation range to the second observation range as claimed.

Glatt teaches means (col. 5, lines 58-61) to determine a movement vector (*detecting motion of the object is considered as a movement vector*) of a movement of the object (*a moving object*); the first detector (12 of fig. 1) is configured to predict a future location of the object (*col. 4, lines 24-34, note a delta image indicates the moving object within or outside a certain maximum movement or travel range, if the moving object is outside the maximum movement or travel range, start signal will be generated so that computer (41 of fig. 3) instructs the appropriate slave camera (e.g. 16 of fig. 3) to track the movement of the object, this disclosure suggest to predict a future location of the object*) and hand-off the observation of the object to the second detector in response to the movement vector indicating that the object is about to move into the second observation range (*col. 4, lines 29-34, if the difference indicated by the delta image is outside the maximum movement or range, a start signal will be generated so that computer 41 instructs the appropriate slave camera to track the movement of the object*); wherein the second detector (e.g. 16 of fig. 3) is activated in response to the processor (41 of fig. 3) determining that the object is traveling from the first observation range (*Note outside the certain maximum movement or travel range, col. 4, lines 29-31*) to the second observation range

*(outside the maximum movement or travel range is considered as the second observation range detected by the second detector, 16 of fig. 3).*

Taking the teachings of Hyuga and Glatt as a whole, it would have been obvious to one of ordinary skill in the art to modify the teachings of Glatt into Hyuga to improve the detection precision and to track automatically and smoothly of the moving object.

Re claim 39, Hyuga further teaches wherein a distance between the second detector and a neighbor-of the first detector is greater than a distance between the first detector and a third detector (fig. 3).

Re claim 41, Hyuga further teaches wherein the mobile unit generates a position signal if the object moves within at least one of the first observation range or the second observation range (1 of fig. 13).

Re claim 46, Hyuga further teaches wherein an electronic file comprising at least one of a recorded voice transmission, a recorded music transmission, a live voice transmission or a live music transmission is provided to the at least-one object via a network (16, 24, and 31 of fig. 13).

Re claim 64, Hyuga further teaches wherein the object data is object location data (e.g. fig. 10, GPS).

Re claim 65, Hyuga further teaches wherein the processor (3 of fig. 13) is configured to select a second detector (e.g. 27-2 of figs. 3 and 13) in response to at least one of the object being in the second observation range, an expectation that the object will be in the second observation range (e.g. fig. 3), a predicted trajectory of the object, an actual trajectory of the object being directed toward the second observation range (figs. 10 and 11), or the object being about to enter the second observation range (e.g. figs. 3, 10, and 11).

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Re claims 52, 54, and 66, see analysis in claims 39, 41, 46, 64-65;

Re claims 56-58, 50, and 62, see analysis in claims 38-41, 44, 46, 64-65;

Re claims 67-69, see analysis in claims 38-41, 44, 46, 64-65.

4. Claims 38-41, 44, 46-47, 52, 54, 56-58, and 62 64-69 are rejected under 35 U.S.C. 102(e) as being anticipated by Hyuga (US 5,818,733) in view of Araki et al. (US 4,737,847).

Re claim 38, Hyuga teaches a system (fig. 13) comprising:

a movement module (2 of fig. 13) configured to receive first data (*e.g. the location of the object based on the GPS system as disclosed in figure 10, vectorial information and direction and distance from any imaging devices*) from a first detector (e.g. 27-1 of fig. 13),

wherein the first data (*a location of the mobile unit carried by the player or patient, 1 of fig. 10, is detected by the GPS system, which has vectorial information and direction and distant from any imaging devices, 27-1-27-n of fig. 13*) is associated with an object (*note the mobile unit has the GPS system that indicates the location associated with the layer or patient*) in a first observation range (*note when the player or patient is located, the image device, 27-1 of figs. 3 and 13, captures the player with the first data information*),

wherein the movement module (2 of fig. 1) is further configured to determine the vectorial information of the mobile unit location and the direction and distance to the mobile unit (*col. 5, lines 39-53, note the vectorial information of the mobile unit location and the direction and distance to the mobile unit (1 of fig. 10) are computed*) based at least in part on the first data (*first location of the object, fig. 10, within the first observation range of the first detector, 27-1 of*

*figs. 3 and 13*) and object data (e.g. 51 and 1 of fig. 13, ) received from a mobile unit (e.g. 1 of fig. 1) physically associated with the object,

wherein the movement module (2 of fig. 13) is further configured to determine a second observation range (26 of fig. 13) associated with the object; and

a processor (3, 22, and 26 of fig. 13) configured to select the first detector (27-1 of fig. 13, note the user enables to select the first detector) based at least in part on the first observation range (note the direction and distance to the mobile unit (1 of fig. 1) from any one of imaging devices (27-1-27-n of fig. 13), wherein the processor is further configured to select a second detector (27-2 of fig. 13) based at least in part on the vectorial information of its location indicating the direction and distance to mobile unit from the imaging devices(*col. 5, lines 46-53*) and the second observation range (27-2 of fig. 13);

wherein the first detector (27-1 of figs. 3 and 13) is configured to hand-off observation of the at least-one object to the second detector (27-2 of figs. 3 and 13) in response to the processor (3 of fig. 13) selecting the second detector (27-2 of fig. 13) in an observation range (pan, tilt, and zoom controls, 26 of fig. 13) of the at least one object (e.g. fig. 4).

It is noted that Hyuga does not particularly teach to determine a movement vector of a movement of the object and to predict a future location of the object as claimed.

Araki teaches a object tracking means (438 of fig. 70) to determine a movement vector (*a displacement vector of the object OBJp, OBJp of fig. 74, col. 26, lines 2-7*) of a movement of the object (438 of fig. 70, *note means for tracking movement of the extracted object from the object extracting means, 436 of fig. 70, col. 29, lines 57-57*) and to predict a future location of the



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object (*the object tracking means, 438 of fig. 70, including means for predicting a moving position of said object; col. 25, lines 59-col. 26, line 14; and col.29, lines 58-60*).

Taking the teachings of Hyuga and Araki as a whole, it would have been obvious to one of ordinary skill in the art to modify the teachings of Araki into the system of Hyuga to provide the system for improving the monitoring accuracy and in the reliability.

Re claim 39, Hyuga further teaches wherein a distance between the second detector and a neighbor-of the first detector is greater than a distance between the first detector and a third detector (fig. 3).

Re claim 40, Hyuga modified by Araki further teaches wherein the second detector is activated in response to an instruction from at least one of the responsive to the processor or the movement module, and wherein the first detector is configured to hand-off the observation of the object to the second detector in response to an instruction from at least one of the processor or the movement module (see 22, 26, and 3 of fig. 13) and the future location of the object (see Araki: 438 of fig. 70; col. 25, lines 59-col. 26, line 14; and col.29, lines 55-60) .

Re claim 41, Hyuga further teaches wherein the mobile unit generates a position signal if the object moves within at least one of the first observation range or the second observation range (1 of fig. 13).

Re claim 44, Hyuga modified by Araki further teaches wherein the vectorial information of its location is determined using at least one of an extrapolated positional signal (fig. 10, Hyuga), or the movement vector as the displacement vector is based on an extrapolated visual signal (see Araki: 438 of fig. 70; col. 25, lines 59-col. 26, line 14; and col.29, lines 58-60).

Re claim 46, Hyuga further teaches wherein an electronic file comprising at least one of a recorded voice transmission, a recorded music transmission, a live voice transmission or a live music transmission is provided to the at least-one object via a network (16, 24, and 31 of fig. 13).

Re claim 64, Hyuga further teaches wherein the object data is object location data (e.g. fig. 10, GPS).

Re claim 65, Hyuga further teaches wherein the processor (3 of fig. 13) is configured to select a second detector (e.g. 27-2 of figs. 3 and 13) in response to at least one of the object being in the second observation range, an expectation that the object will be in the second observation range (e.g. fig. 3), a predicted trajectory of the object, an actual trajectory of the object being directed toward the second observation range (figs. 10 and 11), or the object being about to enter the second observation range (e.g. figs. 3, 10, and 11).

Re claims 47, 52, 54, and 66, see analysis in claims 38-41, 44, 46, 64-65;

Re claims 56-58, 50, and 62, see analysis in claims 38-41, 44, 46, 64-65;

Re claims 67-69, see analysis in claims 38-41, 44, 46, 64-65.

5. Claims 42 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hyuga (US 5,818,733) in view of Araki et al. (US 4,737,847), and further in view of Anderson (US 5,684,476).

Re claims 43 and 50, the combination of Hyuga does not disclose the mobile unit comprises an accelerometer as claimed.

Anderson teaches an accelerometer (col. 11, lines 24-25) configured to provide data indicative of movement of the to facilitate generating the object location information trigger object position calculation (fig. 3, calculate new position, e.g. 84 of fig. 3).

Taking the teachings of Hyuga and Anderson as a whole, it would have been obvious to one of ordinary skill in the art to modify the teachings of Anderson into the combination of Hyuga to improve the accuracy of the object position information.

6. Claims 43, 45, 51, 53, 55, 59, 61, and 63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hyuga (US 5,818,733) in view of Araki et al. (US 4,737,847) and further in view of Bro (US 5,722,418).

Re claims 43, 45, 51, 53, 59, and 61, Hyuga does not particularly teaches wherein the processor is further configured to receive from a database object information comprising at least one of an object name, an object identifier, an object, a group, an object query, an object condition, an object status, an object location, an object time, an object error, and an object image, a video broadcast signal, a representation of an object identity, or an audio broadcast signal; wherein the object is authenticated according to at least one of a voice pattern, a magnetic signal or a smart-card signal as claimed.

Bro teaches wherein the processor (16 of fig. 1) is further configured to receive from a database object information (12 of fig. 1) comprising at least one of an object name, an object identifier, an object, a group, an object query, an object condition, an object status, an object

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location, an object time, an object error, and an object image, a video broadcast signal, a representation of an object identity, or an audio broadcast signal (e.g. 42, 44, 54, and 58 of fig. 1); wherein the object is authenticated according to at least one of a voice pattern, a magnetic signal or a smart-card signal (42 of fig. 1, note another preferred embodiment would be the use of human interface technology to recognize the patient's, employees or client's, 50 of fig. 1, gestures for interpreting body language and speech recognition).

Therefore, taking the teachings of Hyuga and Bro as a whole, it would have been obvious to one of ordinary skill in the art to modify the teachings of Bro into the system of Hyuga to improve the identified user.

Re claims 55 and 63, Hyuga further teaches wherein the processor (3 of fig. 13) confirms the identity of the object (e.g. 31 and 53 of fig. 13) by processing a visual image of the object using at least one adaptive learning software or neural learning software to recognize the object automatically (see also 12, 16, and 200 of fig. 1, Bro).

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Tilfor et al. (US 5,915,020) discloses portable satellite earth station.

### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung Vo whose telephone number is 571-272-7340. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on 571-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tung Vo/

Primary Examiner, Art Unit 2621